

Atty's 23023

Pat. App. Not known - US phase of PCT/DE03/00946

1 1. (Original) A hard metal or cermet cutting material
2 for the machining of chromium-alloyed steel workpieces, with a
3 carbide, nitride and/or carbonitride containing hard material phase
4 and a binder phase of iron, cobalt and nickel,
5 characterized in that,
6 the binder phase contains 10 mass % to 75 mass % Co, 10
7 mass % to 75 mass % Ni, 5 mass % to 30 mass % Cr, > 20 mass % to 60
8 mass % Fe, whereby the sum of the Co, Ni, Cr and Fe does not exceed
9 100 mass %.

1 2. (Original) The hard metal or cermet cutting material
2 according to claim 1, characterized in that, the binder phase
3 additionally contains respectively each up to 5 mass % V, Mo and/or
4 Al, up to the maximum solubility limit of Ti, W, Ta/Nb and/or up to
5 15 mass % Mn.

1 3. (Currently Amended) The hard metal or cermet cutting
2 material according to ~~claims~~ claim 1 to ~~2~~, characterized in that,
3 the binder contains O, N and/or B up to the maximum solubility
4 limits thereof.

1 4. (Currently Amended) The hard metal or cermet cutting
2 material according to ~~claims~~ claim 1 to~~3~~, characterized in that,
3 the C content in the cutting material is so adjusted that no η -
4 phase and C-porosity is present.

1 5. (Currently Amended) The hard metal or cermet cutting
2 material according to ~~claims~~ claim 1 to~~4~~, characterized in that,
3 the binder phase does not contain any hexagonal component.

1 6. (Currently Amended) The use of the hard metal or
2 cermet cutting material according to ~~one of the claims~~ claim 1 to~~5~~
3 for the chip removal machining of steel workpieces, preferably of
4 workpieces of chromium-containing alloys.

1 7. (Currently Amended) The use of a cutting material
2 according to~~one of claims~~ claim 1 to~~5~~ for the chip removal
3 machining of chromium-containing metal workpieces, characterized in
4 that, the chromium content in the binder phase of the cutting tool
5 material is not within the chromium proportion in the steel alloy
6 of the workpiece.